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THE PRONOUNS AND VERBS OF SUMERIAN.

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(Read April 23, 1915.)

The pronouns of a language are relics of its earliest demonstratives. The first desire of the primitive speaker must have been to indicate objects. So soon as nouns had evolved themselves in his mind, the next step was the development of an abbreviated form which could indicate substantives without repeating the noun itself, and these abbreviations or indicators were nothing more than pronouns. It is possible that there existed originally in primitive speech only a single impersonal element of this character, which was at first used, supplemented by gestures, to indicate objects of all three persons. Subsequently, the same syllable may have been tonally differentiated to indicate the 'I, thou, that' idea and still later, additional syllables were called into play to aid in differentiating the first, second and third persons. It is interesting to observe that in the very evidently extremely primitive system of Sumerian pronouns, all the personal particles contain the common demonstrative element *e*, which appears most prominently in the third personal *ene*.

The object of the present paper is to present in a concise form the results of grammatical investigations regarding the Sumerian pronominal particles and also to weigh these theories and conclusions from a philological point of view, especially in connection with the incorporation of the pronominal elements in the verbal structure. It is interesting to note that the distinction between the nearer and farther subject-object, herein noted in connection respectively with the *b* and *n* particles, is a most natural linguistic phenomenon which would have followed almost arbitrarily the evolution of the general demonstrative idea.

The material used in this treatise has been taken partly from the

new vocabularies published in Arno Poebel's "Grammatical Texts,"¹ with the main conclusions of which the present writer is forced to disagree, as the material offered by Delitzsch, Langdon and Prince seems to disprove Poebel's chief thesis of the hidden vowel of the first person.

I.

SEPARABLE PRONOUNS.

Mà-e, 'I,' according to Delitzsch, § 28 = *ma* + demonstrative *-e*. Langdon, p. 102, thinks that *mà-e* was pronounced *mö*, as he regards *a-e* as a diphthong, indicating an *Umlaut*. This is possible, especially as the writing *me-a* = *anaku*, 'I,' also occurs. The pronunciation was more likely *mö* than *mö*. The form *mà-e* was invariably used for the *status rectus*; note that in such cases as IV. R. 17, 40-41; *mà-e mu-un-ši-in-gi-en* = *iaši išpuranni*, 'he has sent me,' the *mà-e* is really a *status rectus* in prolepsis and not an accusative, which would be regularly represented by the oblique *ma* (see just below). It is interesting to notice that Delitzsch gives *me-e* instead of *mà-e* as the usual form, which is again an indication that *mà-e* was not pronounced in two syllables, but really indicated an *Umlaut*. Delitzsch is, therefore, probably right in supposing that the writing *mà-e* really indicated original *ma*, the element of the first person, + the indicative *e*. All authorities are agreed that *a-e* may represent *e* or *ö* (cf. Delitzsch, § 18b).

The oblique form of *mà-e* is generally *ma*, as Poebel: gen. *ma-a* (*k*); cf. *ma-a-kam*, 'it is mine,' Poebel, p. 43; *ma-a-ge-eš ġe-ti* = *aššumia libluš*, 'for my sake may he live.' The Dative is regular: *ma-a-ra*, *ma-ra*, *ma-a-ar* (*passim*). In the locative, Poebel finds

¹ The following abbreviations have been used: AJSL: "American Journal of Semitic Languages"; ASKT. = Paul Haupt, "*Akkadische und Sumerische Keilschrifttexte*"; Br. = R. Brünnow, "Classified List of Cuneiform Ideograms," Leyden, 1887; Del. = Delitzsch: Friedrich Delitzsch, "*Sumerische Grammatik*," Leipzig, 1914; EK. = *Eme-ku* dialect; ES. = *Eme-sal* dialect; HT. = ASKT.; JRAS. XVII. = "Journal of the Royal Asiatic Society," quoted Poebel, pp. 63 ff; Langdon = Stephen Henry Langdon, "Sumerian Grammar," Paris, 1911; MSL. = J. D. Prince, "Materials for a Sumerian Lexicon," Leipzig, 1908; P. = Poebel: Arno Poebel, "Grammatical Texts," Philadelphia, 1914; P. AO. 5403: quoted, Poebel, pp. 62-63; P. 142: quoted, Poebel, pp. 57 ff; PSBA. = "Proceedings of the Society of Biblical Archaeology"; Sfg. = Paul Haupt, "*Sumerische Familiengesetze*."

ma-a, 'on me' (not in Delitzsch). The regular accusative is also *ma-a*.

Poebel (p. 42) gives *mu-me-en* as the full separate form of *ma-e*, which clearly contains the first personal element *m(u)* + *me-en* of the verb 'to be' = 'it is I who am' (cf. *s.v. me-ne*, 'we').

The regular suffix of the first person is *-mu*, not to be confused with the third personal *-mu* referred to below. It is now practically established that the first and second persons suffered a change of vowel in the oblique relation, and that the *-mu* in such cases became *-ma*; as *e-ma*, 'in my temple'; *uru-ma*, 'in my city'; *lugal-ma*, 'for my king,' etc. The difficulty in establishing any definite rule in this connection lies in the fact that both *mu* and *ma* appear indiscriminately for both *status rectus* and oblique (see both Langdon and Delitzsch for numerous examples). The probability is that the original usage of the earlier language was *mu* for *rectus* and *ma* for oblique, but, even in the early documents, we find the confusion of forms so evident, as to make it impossible to come to a definite conclusion. The former theory that *-ma* was the ES. form for EK. *mu* is undoubtedly incorrect. On *-ni* = 1 p. suffix, cf. below, *s.v. e-ne*, 'he, she, it.'

Za-e, 'thou,' according to Delitzsch, § 29 = *za* + demonstrative *e*, as in the case of *mà-e*, 'I.' Similarly Langdon, p. 102, thinks that *za-e* represented *zö*, but this, like *mà-e* = *mò*, was probably pronounced *zò*. (*ò* = *a-e*). *Za-e*, like *mà-e*, was the invariable form of the *status rectus*. In such phrases as *kātu amâtka* = *za-e e-nim-zu*, 'thy word,' *kātu* is really the separable pronoun in nominative apposition. Cf. the remarks above on *mà-e* = *iaši*. Note that the second personal pronoun is also given as *ze*, in *ze-me*, 'thou art' (*passim*) and occasionally *zi-me*, Br., 3387.

The oblique of *za-e* is generally *za*; note Poebel: gen. *za-a(k)*, *za-a-a(k)*; *za-a-ge*; dat. *za-ra*, *za-ar*; *za-a-šu* (KV), 'unto thee' and pure locative *za-a*, 'on thee' (Poebel), a case not in Delitzsch. The oblique *za* is always used with the postposition as *za-da*, 'with thee, from thee,' etc.

Poebel gives also the separable *ze-me-en*, corresponding to *mu-me-en*, 'I' (see, however, *s.v. za-e-me-en*, *s.v. the second person plural*).

The regular suffix of the second person is *-zu*, with usually oblique *-za*, as in the case of *-me*, *-ma* (see just above). But here also *-zu* is found as both *rectus* and oblique, although *-za* seems to have been the original oblique form. Cf. *mà-e eri-za*, 'I am thy servant' (*-za* for *-zu*, L., § 158); *ga-zu-ta*, 'at thy command' (probably should be *ga-za-ta*, etc.). It is not possible to predicate a regular usage for *-zu*; *-za*.

E-ne, 'he, she, it'; according to Delitzsch, § 30 = demonstrative *e* + demonstrative *ne* = *nê*, 'this.' This is clearly the same *ne*, seen in the plural of nouns and verbs. Langdon (p. 107) thinks that *e-ne* = a reduplicated *ni* with apocope of the first *n*; i. e., a sort of plural form. This idea has little foundation, as the demonstrative *e*-element is well established in other forms (as, for ex., *mà-e*, *za-e*, *lugal-e*, the king, etc.) Poebel gives no separate form for *e-ne*, the probability being that *e-ne* itself served as such. There is no distinct oblique form of *e-ne* which is declined like a noun: gen. *e-ne-ge* (KIT); dat. *e-ne-ra*, *e-ne-ir*; loc. *e-ne-a*, 'upon him' (Poebel).

The suffix of the third person has a twofold aspect; viz., 1) *-(a)-ni* and *-ni*, the former being rarer in occurrence than the latter; the oblique of this form is *-na*; and 2) *-(a)-bi* and *-bi*, the former being rarer than the latter; the oblique form of this is *-ba* (Delitzsch, § 37). The same confusion of usage is seen here as that between *-mu*, *-ma* and *-zu*, *-za*, fully pointed out by Delitzsch, § 38; *ki-ba*, 'in its place'; *šū-na*, 'into his hand,' regularly oblique, but *a-na* = *abušu*, 'his father' (for *a-ni*) and *dam šà-ga-a-ni*, 'the man of his heart,' instead of *-a-na*, etc. As to the meaning of the *-n*- and *-b*- suffixes, Langdon (p. 105) believed that *-ni*, *-na* as both noun suffixes and verbal elements, originally denoted animate beings, while *-bi*, *-ba* indicated inanimates, but the logical continuance of this theory is not borne out by the facts. We may note that in one of Langdon's own examples *bi-e-nad-di-en*, 'he slumbers,' *bi-*, here as verbal prefix, represents an *animate* subject (cf. my review, AJS. XXVIII. p. 73). Note also HT., p. 76, 1 and 9: *su-mu-ug-ga-ni* and *su-mu-ug-ga-bi*, 'his suffering,' in both cases animate. Delitzsch, § 40, also gives many examples. The suffix *-ni* is used for the first person in Br., 5334: *i-de tum-a-ni* = *ublim pâniya*; *ud tur-ra-ni-ta* = *ultu ûm cixriku*, 'from the days of my youth'; *lal-a-ni* = *candaku*, 'I am

yoked.' The only possible explanation is that the translator deliberately transferred the persons. The possibility that the *-n-* and *-b-* elements were originally used to denote the remote and nearer subject or object respectively, has already been pointed out by Thureau-Dangin, ZA. XX., pp. 380-404, and fully discussed by Poebel (ZA. XXI., pp. 218-230; Prince, AJSL., pp. 364-365). This theory, although not yet capable of entirely satisfactory demonstration, lends itself more readily to credence than the animate-inanimate idea. In the later language, which represents a period of grammatical decay, the *n* and *b*-suffixes appear to be used arbitrarily. It is probable, however, that in the earlier phases of Sumerian, these endings must have had the force of remote and nearer demonstratives respectively.

Me-ne, me-en-ne, 'we.' Poebel gives *me-en-de, me-de, me-en-de-en*, which, however, should be read *me-en-ne, me-ne, me-en-ne-en*. He uses the *d*-element, because he finds the oblique form *me-en-da-na*, 'without us' (p. 47) and also *nam-da-me-en-da-na*, 'without us'; viz., *nam* negative + prep. *-da* + first person plural *me-en* + prep. *da* repeated + *-na*, probably negative, repeated. Poebel's own form *me-da-nu* (p. 34, line 34), 'without us' clearly shows that the *me-en* in these *me-en-da*-forms is the *me-en* of the first person. Thus, *me-en-da-nu* = *men* first person + prep. *da* + negative *nu*. A form *me-en-de* eliminates the evident combination of *me* = first person + plural *-ne*. Similarly, Poebel's separate forms *me-de-en-de* and *me-de-en-de-en* must be read *me-ne-en-ne* and *me-ne-en-ne-en*, respectively; *me-en-ne* = 'we' + *en*, element of the verb to be; lit. 'it is we who are' (cf. *mu-me-en, s.v. mà-e* above).

According to Delitzsch, *-me-ne*, etc. = *ma* + *ene*, 'I and he,' a sort of exclusive 'we.' But if this were the case, we should expect to find also an inclusive 'we' = 'I and thou,' which would have the form *me-en-zi-en* (or *me-ze*), but this form actually occurs with the equation *attunu* 'you,' plural (just below). It is much more likely to suppose that *me-en-ne, me-en-ne-en* represent a pure plural of the first personal *mê(n)*; i. e., *mê(n)* + *ne* or *ne-ne* + the verbal *-en*, when the form ends in *-n*. The pluralizing of the first person singular occurs for example in Central American Tule *an-mala* = *an* 'I' + the collective *-mala*. Indeed, the form *men-men* is actually

a reduplication of the first personal singular = *me-* + verbal *-n*. We find the reduplicated suffix *-mu-mu* 'our' (see below), which confirms this view.

Me-en-ne declines regularly, although no genitive has been found as yet; probably = *me-en-ne-ge* (KIT); dat. *me-en-ne-ra*, *me-en-ne-ir*; loc. *me-en-ne-a*, these last two cases being given by Poebel.

The suffix of the first person plural appears as 1) *-mu-mu*, Langdon, p. 109, n. 1, although this is rare; 2) Clay, Miscellaneous Tablets, has found: *dumu-mu-meš* 'our child,' a direct plural of *-mu*; 3) as *-men* : *en-men* 'our lord,' Langdon, p. 103 (Delitzsch, § 33, gives *-men* as frequent in this sense); 4) the common suffix is *-me*: *ad-da-me* 'our father'; *ama-me* 'our mother'; *ki-me-ta* = *ittini* 'with us,' etc. The curious form *ki-me-ne-ne* = *ittišunu* 'with them,' Delitzsch, § 43, probably was wrongly translated and means 'with us'; i. e., *ki* 'with' + *me-ne-ne*, a pluralized form of the usual *-me*. There seems to be no distinction in these suffixes between *rectus* and oblique. This is clearly indicated by the series of suffixes *an-ne-en*, *en-ne-en*, *in-ne-en*, *me-en-ne-en*, *un-ne-en*, all which are used for the first person plural (MSL., p. xxii, § 5) and are not honorifics as I thought (AJSL., XXVIII., p. 73). These are merely plural first personal suffixes with possible connectors (cf. just below *s.v. me-en-zi-en*). The *-nen* element which appears in all of them must represent *-me-n*.

Me-en-zi-en = *attûnu* 'you' (given by all sources) and also *zi-ne* 'you,' a real plural of the second personal element *zi* (*ze* = *za-e*), Langdon, p. 104. Note the parallel *me-ne* 'we.' In view of the fact that *za-e-me-en* also = *attûnu*, IV. R. 21, 1 B. rev. 3, clearly = *za-e* + *men* = 'thou and I,' it is probable that *me-en-zi-en* also = 'I and thou' (*me*, 'I' + verbal *-en* + *zi(ze)*, 'thou + verbal *-en*). But this *za-e-me-en* is equivalent to Poebel's full form of *za-e* (see above *s.v. za-e*). It is impossible that *za-e-me-en* could have been a second personal singular separate form and at the same time a second person plural! If it were really used in both senses there must have been a different tone for each usage of *men* = respectively the verb 'to be' and the first person. Note that the odd reading *NI-e-me-en*, HT. 139, § 7, clearly = *za(l)-e-me-en*.

Of *me-en-zi-en* no genitive has been discovered, but it probably

was *me-ne-zi-en-ge* (KIT); dat. *me-en-zi-en-ra* and *za-ra-an-zi-en* (!); loc. *za-a-an-zi-en*. In these two latter forms, we have a reduplication of the second person; i. e., *za* + dat. *-ra* + verbal (*a*)*n* + the second personal *zi* with verbal *en* = *zaranzen* and *za-a* loc. + (*a*)*n* = second person + *zi* with verbal *en* = *zânzen*.

The suffix of the second plural is *-zu-ne*, as *mu-lu-zu-ne*, 'your lord,' Langdon, p. 104. Note that in Delitzsch, "*Sumerisch-Akkadisch-Hettitische Vokabularfragmente*," p. 19, the form *á-zu-šú-ne-a-áš* = *ana ittikunu*, 'for your wage' = the suffix *-zu-ne*, with infixed preposition *šú* (KU) + directive *a-áš*, an unusual and interesting example of infixation. The suffix *zu-ne-ne* often occurs, Delitzsch, § 42: *u-gu-zu-ne-ne* = *elikunu*, 'upon you'; *nam-en-un-un-zu-ne-ne* = *macartikunu*, etc. Here we have plainly the pure plural of the second personal element and no indication of 'thou and I.'

As in the case of the first person plural, there seems to be no distinction between *rectus* and *oblique*. This is indicated by the series of suffixes similar to those just cited in connection with the first person plural; *-ab-ci-en*, *-an-ci-en*, *-en-ci-en*, *-ib-ci-en*, *-íb-ci-en*, *in-ci-en*, *-me-ci-en*, *-me-en-ci-en* and *-un-ci-en*. The forms *-me-ci-en* and *-me-en-ci-en* may contain an 'I and thou' element. These all represent the second personal suffix with possible connectors.

E-ne-ne-ne, 'they'; according to Delitzsch, § 32; *ene* + *enene*, 'he and they,' but this form is more likely to be *ene*, 'he, she, it' + the reduplicated plural element *-ne*, as in the case of *me-ne* and *-zu-ne-ne*, cited above. The short form *e-ne-ne* is also common. Poebel gives *e-ne-ne-ne* as the full separate form, but without sufficient foundation, as either *e-ne-ne* or *e-ne-ne-ne* might have served in this capacity, as in the case of the singular *e-ne*.

The third person declines regularly; gen. *e-ne-ne-ge* (KIT); dat. *e-ne-ne-ra*, *e-ne-ne-ir*; loc. *e-ne-ne-a*.

The third plural suffix, as in the case of the third person singular, is twofold; 1) (*a*)-*ne-ne*, the *a* not being always present, in fact it is usually part of the prolonged root, as *dug-ga-nene*. It appears regularly *šu-ne-ne*, 'their hand'; *gir-ne-ne*, 'their foot'; *ki-ne-ne-ta* = *ittišunu*, 'with them' (on *ki-me-ne-ne* = *ittišunu*, Delitzsch, § 43, see above *s.v.* *me-en-ne*). 2) The endings with the *b*-element: *bi-e-ne-ne*, *bi-e-ne*, Delitzsch, § 43; *be-ne-ne*, Langdon, p. 108, and

be-ne, Langdon, p. 108, are also common: *sib-bi-ne*, 'their shepherd'; *muġ-bi-ne-ne* = *elišunu* (Langdon, p. 108). The distinction between remote and nearer subject and object, respectively *-ne-ne* and *-bi-ne*, is no more logically carried out in the later language than in the case of *-ni*, *-bi* of the third person singular (*q.v.*), but their original remote and nearer force seems just as probable.

The third person plural possessive is frequently expressed by the singular suffixes of the third person: *-ni*, *-bi*, a phenomenon which

TABLE OF PRONOUNS.

	I	Thou	He, She, It
Nom.	<i>ma-e</i>	<i>za-e</i>	<i>e-ne</i>
Gen.	Separate: <i>mu-me-en</i> { <i>ma-a-(k)</i> <i>ma-a-ge</i>	Separate: <i>za-e-me-en</i> { <i>za-a(k)</i> <i>za-a-a(k)</i> <i>za-a-ge</i>	<i>e-ne-ge</i>
Dat.	{ <i>ma-a-ar</i> <i>ma-ra</i> <i>ma-a-ra</i>	{ <i>za-ra</i> <i>za-ar</i> <i>za-a</i>	<i>e-ne-ra</i>
Loc.	<i>ma-a</i>	{ <i>za-a</i> <i>(za-a-šū, 'to thee')</i>	<i>e-ne-a</i>

SUFFIXES	SUFFIXES	SUFFIXES
<i>Rectus</i> ² <i>-mu</i>	<i>-zu</i> ²	{ <i>(a)-ni, -ni</i> ⁴ <i>(a)-na, -na</i>
Oblique (<i>-ni</i> very rare and probably an error)	<i>-za</i>	{ <i>(a)-bi, -bi</i> ⁴ <i>(a)-ba, -ba</i> <i>-mu</i> ⁵

We	You	They
Nom. <i>me-ne, me-en-ne, me-en-ne-en</i>	<i>me-en-zi-en</i>	{ <i>e-ne-ne</i> <i>e-ne-ne-ne</i>
Gen. ^x <i>me-en-ne-ge</i>	^x <i>me-en-zi-en-ge</i>	<i>e-ne-ne-ge</i>
Dat. { <i>me-en-ne-ra</i> <i>me-en-ne-ir</i>	{ <i>me-en-zi-en-ra</i> <i>za-ra-an-zi-en</i>	{ <i>e-ne-ne-ra</i> <i>e-ne-ne-ir</i>
Loc. <i>me-en-ne-a</i>	<i>za-a-an-zi-en</i>	<i>e-ne-ne-a</i>

SUFFIXES ³	SUFFIXES ³	SUFFIXES ³
<i>-me-en</i>	<i>-zu-ne</i>	<i>-(a)-ne-ne, -ne-ne</i>
<i>-me</i>	<i>-zu-ne-ne</i>	
{ <i>-mu-mu</i> <i>-mu-meš</i> } rare		{ <i>-be-e-ne-ne</i> ³ <i>-be-ne-ne, etc.</i>

CONNECTING SUFFIXES
*an-ne-en, en-ne-en,
in-ne-en, me-en-ne-en,
un-ne-en*

CONNECTING SUFFIXES
*ab-ci-en, an-ci-en,
en-ci-en, ib-ci-en,
ib-ci-en, in-ci-en,
me-ci-en, me-en-ci-en,
un-ci-en*

² Confused usage.

³ No distinction between *rectus* and oblique.

⁴ Probable distinction between nearer and farther subject and object.

⁵ Used only with participles, so far as is known. See below.

is seen in other languages, as, for example, in Central American Tule, where *a'ti*, *i'ti* can indicate both 'he, she, it' and also 'they' (Prince, Amer. Anthropologist, XV., p. 484; the *a'ti*, *i'ti* -element may be pluralized by the collective suffix *-mala*, which, however, is often omitted).

II.

SUMERIAN VERB WITH PRONOUNS, WITH REFERENCES TO FOLLOWING COMMENTARY.

I-THEE

GA-CLASS: *ga-mu-ra-ab-dím* = *lu-bu-ša-ku-um*, 'I will (let me) make for thee,' P., No. 142, rev. 2, 10.

MU-CLASS: *nu-mu-ra-te-mà-dè(ne)-en* = *u-la e-še-xi-a-kum*, 'I shall not go to thee,' P. AO. 5403, 6. *xu-mu-ra-ab-gă(r)*, 'I gave thee as a present,' P., p. 103.

MI-CLASS: *mi-ni-max-en*, 'I made thee great therein (for it),' P., p. 112.

I-HIM

GA-CLASS: *ga-an-na-dím* = *lu-bu-su-um*, 'I will make it for him,' P., No. 142, rev. 2, 15.

MU-CLASS: *xu-mu-na-du*, 'I built for him,' P., p. 102. *mu-na-du*, 'I built for him,' P., p. 102. *xu-mu-ni-max* = *lu-ša-ti-ir*, 'I will increase for him' (or) 'therein,' P., p. 102.

MI-CLASS: *mi-ni-í* = *a-na-ku šu-a-ti šu-a-ti*, 'I it for him,' P. JRAS., XVII., 65, 4, 23. *mi-ni-du* = *al-bi-in*, 'I moulded it for him' (or) 'therein,' P., p. 102. *xu-mi-ni-in-tax* = *lu-um-mi-su*, 'I supported it,' P., p. 102.

NE-CLASS: *ne-gí-a*, 'I restored it (Clay).'

BA-CLASS: *ba-a* = *a-na-ku šu-a-ti* (+ *-ti*; probably = *šuati šuati*), P. JRAS., XVII., p. 65, 4, 19. *ba-ni-í* = *a-na-ku šua-ti šu-a-ti*, 'I it for him,' P. JRAS., XVII., p. 65, 4, 28 (also *ba-ni-e* ditto). *ba-an-na-te-en e-te-xi-šum*, 'I went to him,' P. AO., 5403, 8.

BI-CLASS: *bí* = *a-na-ku šu-a-ti*, 'I it (or) him,' P. JRAS., XVII., p. 65, 4, 13. *bi-i* = *a-na-ku šu-a-ti*, 'I it (or) him,' P. JRAS., XVII., p. 65, 4, 14.

I(N)-CLASS: *i-ni-í* = *a-na-ku šu-a-ti šu-a-ti*, 'I it for him,' P. JRAS., XVII., p. 65, 4, 22. *in-na-ni-í* = *a-na-ku šu-a-ti šua-ti u*

a-na-ku šu-a-šum, 'I it for him and I to him it,' P. JRAS., XVII., p. 65, 4, 30.

I-HIM

sag-túm-ma i-ni-in-ga = *ma-gi-ir-tam ak-bi-šum*, 'I spoke favorably to him,' P. No. 142, rev. 3, 21. *in-na-te-en* = *e-it-xi-šum*, 'I have gone to him,' P. AO. 5403, 2.

IM-CLASS: *ù-gul im-ma-an-mà-mà*, 'I asked him,' P. p. 102.

THOU-ME

MA-CLASS: *nam-ma-te-má-dé (ne)-en* = *la ta-ṭe-xi-a-am*, 'do not come to me,' P. AO. 5403, 5.

MU-CLASS: *nam-mu-un-xa-xa-en* = *la tu-te-bi-da (an-ni)*, 'mayst thou not be lost to me,' P. No. 142, rev. 3, 8.

THOU-HIM

POSTPOSITIVE CLASS: *dím-(ma)-na-ab* = *e-bu-su-um*, 'make for him,' P. No. 142, rev. 2, 14. *gur-an-ši-ib*, 'turn to him,' P. No. 142, rev. 2, 16. *te-a-na* = *ṭe-xi-šum*, 'go to him,' P. AO. 5403, 1. *na-an-na-te-mà-dè(ne)-en* = *(la) te-ṭe-(xi)-šu-um*, 'do not go to him,' P. AO. 5403, 4.

MI-CLASS: *mi-ni-e* = *at-ta šu-a-ti- šu-a-ti*, 'thou it it,' P. JRAS. XVII. p. 65, 4, 25.

BA-CLASS: *ba-e* = *at-ta-ku (sic !)* *šu-a-ti*, 'thou it,' P. JRAS. XVII. p. 65, 4, 20.

BI-CLASS: *bi-ne* = *at-ta šu-a-ti*, 'thou it,' P. JRAS. XVII. p. 65, 15. *bi-e* = *at-ta šu-a-ti*, 'thou it,' P. JRAS. XVII. p. 65, 16.

I(N)-CLASS: *i-ni-e* = *at-ta šu-a-ti šu-a-ti*, 'thou it it' or 'it for him,' P. JRAS. XVII. p. 65, 4, 24. *in-na-ni-e* = *at-ta šu-a-ti šu-a-ti*, 'thou it for him,' P. JRAS. XVII. p. 65, 4, 32. *in-na-te-e-en* = *te-it-xi-šum*, 'thou hast gone to him,' P. AO. 5403, 9, also 'go to him,' ditto, 2. *in-da-má-e-en* = *ta-ša-(ka)-aš-(šu)-mu*, 'thou shalt place it upon him,' P. AO. 5403, 10.

HE-ME

MA-CLASS: *ma-an-si* = *i-din-nam*, 'he gave it to me,' P. p. 110. *igi . . . ma-ni-in-du-a*, 'when he looked upon me,' P. p. 104. *igi . . . mu-ši-in-bar-ra*, 'when he looked upon me,' P. p. 102. *ma-ar ma-an-du-ga*, 'when he commanded me,' P. p. 104. *ma-ra ma-an-du-ga*, 'when (to build) she ordered me,' P. p. 105. *xa-ma-ab-*

dīm-e = *li-bu-ša-am*, 'may he make for me,' P. No. 142, rev. 2, 22.

MU-CLASS: *mu-ub-dīm-e* = *i-bu(pi)-ša-am*, 'he made for me'; P. p. 57, rev. 3, 19, renders 'makes' (?). *nu-mu-ub-dīm-e* = *u-la i-bu-ša-am*, 'he did not make for me,' P. No. 142, rev. 3, 20. *sag-túm-ma mu-un-ga* = *ma-gi-ir-tam ik-bi-a-am*, 'he spoke favorably to me,' P. No. 142, rev. 3, 21. *sag-ki . . . mu-ši-in-bar*, 'he looked on me,' P. p. 105. *mu-na-an-si*, 'he has given to me,' P. p. 110. *nam mu-un-tar*, 'he determined fate for me,' P. p. 105.

MI-CLASS: *nam-mu mi-ni-in-tar-ra*, 'after he had determined fate for me,' P. p. 105.

HE-HIM

MU-CLASS: *mu-na-ni-in-gi-gi*, 'he replied to me,' P. p. 93. *u . . . mu-na-an-si-ma-ta*, 'after he had given to him,' P. p. 105. *mu-na-ni-in-du*, 'he had built for him therein,' P. p. 105. *mu-na-an-ši-in-gar*, 'he made it for him,' P. p. 106.

MI-CLASS: *mi-ni-in* = *šu-u šu-a-ti šu-a-ti*, 'it for him,' P. JRAS. XVII. 65, 4, 27. *mi-ni-in-tar-ra*, 'when he had determined it for him (it),' P. p. 112.

BA-CLASS: *ba-on* = *šu-u šu-a-ti*, 'he it,' P. JRAS. XVII. p. 65, 4, 21. *ba-an-na-te* = *i-ṭe-xi-šum*, 'he went to him,' P. AO. 5403, 7.

BI-CLASS: *bi-in* = *šu-u šu-a-ti*, 'he it,' P. JRAS. XVII. p. 65, 4, 17-18. *šu-ni bi-in-si-a*, 'after he had placed it in his hand,' P. p. 105.

IB-CLASS: *ib-ri-tuk*, 'he shall receive for it,' (Clay).

I(N)-CLASS: *i-ni-in* = *šu-u šu-a-ti*, 'he it it,' P. JRAS. XVII. p. 65, 4, 26. *in-na-ab-si-mu* = *in-na-din-šu*, 'he shall give it to him,' P. p. 94. *in-na-ab-gi-gi* = *ip-pa-al-šu*, 'he shall answer it to him,' P. p. 94. *in-na-ab-gur-ri* = *u-ta-ar-šu*, 'he shall return it to him,' P. p. 94.

THEY-ME

MU-CLASS: *xu-mu-ši-in-bar-ri-eš* = *lu-ip-pa-al-su-um*, 'they have looked upon me,' P. p. 104. *sag-e-eš xu-mu-PA-TUG-DU-eš*, 'they have given it to me as a gift,' P. p. 104.

BI-CLASS: *šu-mu-šù bi-in-si-eš-a*, 'when they gave it into my hands,' P. p. 104.

THEY-THEE

PRECATIVE CLASS: KA *xa-ra-ab-ša-ša-gi-ne* = *li-iš-te-mi-ga-kum*, 'may show reverence unto thee,' P. p. 110.

THEY-HIM

PRECATIVE CLASS: *xe-e-en-na-ab-dim-e-ne* = *li-bu-šu-šum*, 'may they make for him,' P. No. 142, rev. 2, 17.

MU-CLASS: *mu-un-ni-in-PA-TUG-DU-a*, 'when they had given to her as a gift,' P. p. 112. *mu-na-an-si-mu-uš-a* = *i-ti-nu-šum*, 'when they had given it or gave it to him,' P. p. 104. *mu-na-an-gi-ni-eš-a* = *u-ki-in-nu-šum*, 'when they had made secure for him,' P. p. 104.

I(N)-CLASS: *in-na-ab-ka-la-gi-ne* = *u-dan-ni-nu-šum*, 'they shall pay him,' P. p. 104. *na-an-na-ab-dim-e-ne* = *la i-pi-šu-šum*, 'may they not make for him,' P. No. 142, rev. 2, 18.

COMMENTARY.

1. *Ba*-, 'I' (s.v. I-HIM); cf. also IV. R. 14, obv. 20 a: *ki-bi-gar-ra ba-ni-ib-dur-ru* = *ina tâkulti lûšešib*, 'I will invite (them) to a feast'; probably first person, but the text is broken.

2. *Ba*-, 'thou' (s.v. THOU-HIM); not an uncommon usage. Cf. AJSL. XIX., § 20; IV. R. 17, 45 a; in IV. R. 30 nr. 3, rev. 15, there occurs a series of *ba*—*ne* forms all = 2 p. It is possible that the Assyrian scribe changed them from a 3 p. which perhaps was used for a general "you" like German *man*; French *on*.

3. *Ba*-, 'third person' (s.v. HE-HIM); occurs *passim*.

4. *Bi*-, 'I' (s.v. I-HIM); an unusual prefix in this sense.

5. *Bi*-, 'thou' (s.v. THOU-HIM); an unusual prefix in this sense. *Bi*-, as a *prefix*, is unusual in any case, even as the third person, as it is a common third personal *suffix*.

6. *Bi*-, . . . -*eš*, 'they' (s.v. THEY-ME); not common, although, if *bi*- is used in the singular 3 p., it is natural to find *bi*-, . . . *eš* for the plural.

7. *Ga*-, 'I' (s.v. I-THEE; I-HIM); a very common first personal prefix, probably from the cohortative *ga*; in fact, *ga*- was really cohortative originally, although it is frequently used in the sense "I will." Cf. Del., § 157, and AJSL. XIX., § 23. It also = 1 p. in HT. 119, obv. 22: *ga-nu ga-ni-lax-en* = *alkam î nillikšu*, 'come let us go.' Note that is 1 p. plural here. On the other hand, *ga*- is used for the 2 p., IV. R. 11, 45 b: *en-nun ga-ne-tuš* (KU) = *ana maccarti tûšešib*, 'thou shalt sit in the watch'; cf. AL.³ 134, obv. 1: *an-sud ud-ag bil-gim sar-ki-ta za-e ši-in-ga-me-en bil* = *nûr šamê ša kîma išatim ina mâtim napxat attîma*, 'the light of the heaven which like fire in the land shines art thou, fire.' *Ga*- also may be used for the 3 p.; IV. R. 11, 19-20 b: *mu-uš-ku-pi azag-ga-na-ta a-an ga-mu-ri-a-bi* = *ina uznišu elliti minam ixsusa*, 'what has he planned with his brilliant ears.'

8. *Im*-, 'I' (s.v. I-HIM); cf. also IV. R. 6, 41 b: *ki-ta im-mi-in-ri*, 'I

placed it at the bottom,' but used with a preceding *mà-e*, 'I.' *Im-*, however, can mean "thou"; II. R. 16, 16 e: *er* (A-SI) *im-ma-an-šeš-šeš* = *tabākki*, 'thou weepst.' *Im-* is very common as a third personal prefix.

9. *In-*, 'I' (s.v. I-HIM). Very rare. Poebel's examples are the best instances of this use.

10. *In-*, 'thou' (s.v. THOU-HIM); IV. R. 7, 30 a: *nin ma-e nin-zu-a-mu za-e in-ma-e-zu* = *ša anâku idû attâ tîdî*, 'what I know thou shalt know' (= 'for me' = *-ma-e-*?); cf. AJSL. XIX., § 28. *In-* is commonly used with the third person.

11. *In-*, . . . *-ne*, 'they' (s.v. THEY-HIM); a logical third person plural.

12. *Ma-*, 'me, to me' (s.v. HE-ME); for this usage Poebel's examples are best. Note also *ma-an-se* = *iddinšu*, 'he gave it to him' with the third person, Br. 4418.

13. *Mi-*, 'I' (s.v. I-THEE). Poebel's example is the only one known to me.

14. *Mi-*, 'me' (s.v. HE-ME; HE-HIM). Note that the *-nin-* here = 'me.' *Mi* is most common with the third personal sense, Br., p. 546.

15. *Mi-*, 'thou' (s.v. THOU-HIM); cf. also IV. R. 24, nr. 3, 6-7: *tul-tul-aš mi-ni-in-šid* = *tilâniš tamnu*, 'thou regardest it as a ruin,' but points back to a 2 p. *-zu* in line 3.

16. *Mu-*, 'I' (s.v. I-THEE; I-HIM); very common use (see AJSL. XIX., § 32).

17. *Mu-*, 'thou' (s.v. THOU-ME); only in Poebel, so far as I have met it.

18. *Mu-*, 'he' (s.v. HE-ME; HE-HIM); *passim*; AJSL. XIX., pp. 217-218.

19. *Mu-* . . . *-eš*, 'they' (s.v. THEY-ME); a natural plural of *mu-*, 'he.' Note *mu-* . . . *-uš*, the same plural, as *mu-* . . . *eš* with vowel harmony; *uš* for *eš*.

III.

ANALYSIS OF MATERIAL.

The prefixes, infixes and suffixes shown by the above table may be grouped alphabetically as follows:

an-ši-ib, '(turn thou) it to him' = *šib*.

ba = I, 2 and 3 p. subject.

ba-an-, 'he it.'

ba-an-na-, 'he it; he for him.'

bi = I, 2 and 3 p. subject.

bi- . . . *-eš* = 3 pl. subject.

ga = I p. subject.

ga-mu- = I p. subject: 'I will.'

ġen- . . . *-e-ne* = 3 p. pl. precative subject.

i = I p. subject; cf. *i-ni-in*.

i(b)- = 3 p. subject.

im = I, 2 and 3 p. subject.

i-ni-in-, 'I to him.'

in- = 1, 2 and 3 p. subject.

in-na-, 'I to (for) him.'

in-na-ab-, 'he (they) to him.'

ma- = 2 p. subject; 3 p. subject: 'he to me.'

ma-ab-, 'he it for me.'

ma-an-, 'she (he) . . . me' (acc.).

ma-ni-in-, 'he upon me.'

mi- = 1, 2 and 3 p. subject.

mi-ni, 'I thee therein; I it for him; he it for me.'

mu- = 1, 2 and 3 p. subject. Note also the following:

mu- . . . -eš = 3 p. subject.

mu-na-an-, 'he to (for) him; he it to me; they it for (to) him.'

mu-na-ni-in-, 'he it for me.'

mu-ni-, 'I for him.'

mu-ši-in-, 'he for me.'

mu-un-, 'he for (to) me.'

mu-un-ni-in-, 'they it for (to) her (him).'

-na-, 'for (to) him.'

-na-ab-, 'it for (to) him.'

-ni-i-, 'for him'; *mi-ni-i-*, 'I for him; thou for him'; *ba-ni-e-*, 'I it for him'; *i-ni-i-*, 'I it for him.'

-ra-, 'to thee.'

-ra-ab-, 'it for thee.'

Analyzing the above elements still further, we observe that the first personal subject may be denoted by: *ba-*; *ga-*; *ga-mu-*; *im*; *in-*; *i-*; *mi-*; *mu-*.

The second personal subject may be denoted by: *ba-*; *bi-*; *in-*; *ma-*; *mi-*; *mu-*; *mu--eš* (pl.).

The third personal subject may be denoted by: *ba-*; *bi-eš* (3 pl.); *i(b)-*; *in-*; *ma-*; *mi-*; *mu-*.

In other words *ba-*, *im-*, *in-*, *mi-*, and *mu-*, may indicate the 1, 2 and 3 persons indiscriminately, and that *ma-* = 2 and 3 persons, while *ga-* is almost always used for the 1 p.

Nor is the problem made easier by the tabulation of the 1, 2 and 3 personal objective infixes; viz., 1 p. object: *ma-*, 'he to me'; *ma-ab-*, 'he it for me'; *ma-an-*, 'she (he) . . . me' (acc.); *ma-ni-in-*,

'he upon me'; *mi-ni-*, 'he it for me'; *mu-na-an-*, 'he it for me'; *mu-ši-in-*, 'he upon me'; *mu-ub-*, 'he for me'; *mu-un-*, 'he for (to) me.'

The second personal object shows: *mi-ni-*, 'I thee therein,' but consistently *-ra-*, 'to thee; thee'; *-ra-ab-*, 'it for thee.'

The third personal object is seen in *ba-an-*, 'he it'; *ba-an-na*, 'he it; he it for him'; *in-na*, 'I to him'; *mu-na-an-*, 'he to (for) him; they it for him'; *mu-un-ni-in-*, 'they it for her (him).' The element *-na* clearly = 'to him,' as *na-ab* = 'it for him'; *-ni-i-*, 'for him,' as *ba-ni-i*, 'I it for him'; *i-ni-i*, 'I it for him'; *mi-ni-i*, 'I for him; thou for him.'

We find in these forms the duplicate *mi-ni-i*, 'I thee therein' and 'I for him' = 1 and 3 object; *mu-un-*, 'he for me,' but *mu-na-an-*, 'he it for me' and 'he it for him.'

Poebel's table of pronominal elements as used by the verb (p. 45) is most ingenious, but not satisfactory, as will be shown. His classification is as follows:

	Infixd.	Enclitic.	Absolute.	Suffix.
1 p.	'	<i>m</i>	<i>m</i> (<i>de</i> and <i>en</i>)	<i>en</i>
2 p.	<i>e</i>	<i>z</i>	<i>z</i> (and <i>en</i>)	<i>en</i>
3 p.	<i>n</i>	<i>n</i>	<i>e</i>	<i>e</i>
Collective	<i>b</i>	<i>b</i>		

This he has elaborated from his Paradigms (pp. 70 ff); thus: *ni-la-en*, 'I pay'; *n* is preformative + the *i* which contains the 1 p. ' ; *la* = root + *en*-suffix of the 1 and 2 p.; *ni-la-en* also = 'thou payest'; only here, he thinks, that his 2 personal *e* is contained in the *i* of *n-i*. *Ni-la-e* also means 'he pays,' where the *n* = preformative of the third person + connecting vowel *i* + root *la* + 3 personal suffix *-e*. The analysis of the forms, just given is my own, made from what I believe to be his theory. The 'vowel for the first person again appears in the simple forms *i-dim*, 'I made'; the *e*-vowel of the second person in *e-dim*, 'thou madest' and the *n* of the 3 p. in *indim*, 'he made' (p. 78). Similarly *a-tum*, 'I brought' (*a* = *a'*); *a-mên*, 'I am' (Clay); *e-tum*, 'thou didst bring' and *an-tum*, 'he brought' (p. 80) seem to indicate the correctness of his idea. But, without entering more deeply into this ingenious and carefully thought out theory, it may be demolished by the simple fact that *a-* (= *a'*), *e-* and *n-* do not always mean the 1, 2 and 3

persons, although *a-* and *e-* usually occur in this sense. Thus, *a-* indicates the 3 p.: *a-rim-rim-ne* = *iṭ-ṭi-bu-(u)*, 'they have been immersed'; *kas-?* *a-ab-du* (КАК) = *ši-ka-ra i-ba-ba-di* and *a-ne-in-gi* = *ik-?-šu*, both clearly third persons, although the meaning of the stems is unknown (cf. Br., p. 548). On the other hand, *a-* generally indicates the 1 p. (Prince, AJSL. XIX., p. 211). The prefix *e-* is frequently used of the 3 p. as: *e-ag*, 'he made'; *e-gaz*, 'he killed'; *e-gen*, 'he went' (Delitzsch, § 135 and § 184a). As for *n(i)*, Poebel himself gives examples cited above of *n(i)* used for both the 1 and 2 persons, while for the 3 personal use, cf. Br., p. 543: *ni-zu* = both *i-du-u*, 'they know' and *ti-di*, 'thou knowest'; *ni-gal* (ІК) = *i-ba-aš-ši*, 'it is,' etc. *ad nauseam*. In other words, *a*, *e* and *n(i)* appear used for all three persons indiscriminately with a preference in favor of the 1, 2 and 3 persons respectively. On the other hand, is Poebel correct in supposing that the suffixed forms *-en* attached to verbs are characteristic of the 1 and 2 persons only? As in the case of *a*, *e* and *n* they appear indiscriminately for all three persons: *ni-la-en*, 'I pay'; 'thou payest,' as cited above, but *mu-un-tag-en* = *in-naq-qu-u*, IV. R. 19, 48 b; *mu-un-ši-in-gi-en* = *iš-pu-ra-an-ni*, 'they have sent me,' Br., p. 560. As to Poebel's 3 p. *-e*, it, of course, occurs often with the 3 p.; cf. *til(BE)-e* = *ig-da-mar*, Br., 1499, etc., but also *an-na-ab-uš-e* = *tu-ša-ar-xa-za-šu*, 'thou shalt cause him to seize it'; it is also a frequent sign of the imperative, as *kú-e* = *akul*, 'eat thou'; *uš-e* = *ri-da-an-ni*, 'have connection with me,' Br., 553.

There can be no doubt that Poebel is right in giving *m-z* and *n-b* as the respective characteristics of the endings of the postpositive conjugation, as *-mu-*, *-zu-* and *-ni*, *-na-* and *-bi-*, *-ba-* are the ordinary 1, 2 and 3 personal suffixes, respectively, of the postpositive *ḥâl*-clause; yet even here we find a variation, as the third person also appears with the ordinarily first personal *-mu* in relative clauses. This is the so-called *-mu* of the third person which I believe I was the first to call attention to (MSL. XXIX, § 32). The best illustration of it will be seen in the following phrases from IV. R. 27, No. 1, 4-11:

šinig-ga šar-šar a nu-nag-a-mu

bi-i-nu ša ina mu-sa-ri-e me-e la iš-tu-u

the grain which hath drunk no water in its bed ;

suġur edin-na pa nu-siġ-ga-mu

kim-mat-su ina ci-e-ri ar-ta la ib-nu-u

whose bud in the field no shoot has borne ;

GIŠ-A-AM šita(RAT)-na ba-nu-su(g)-ga-mu

il-daġ-qu ša ina ra-ṭi-šu la i-ri-šu

the sprout which in its water-ditch is not planted ;

GIŠ-A-AM ur-ra ba-ab-bu-ra-mu

(il-daġ-qu) ša iš-da-nu-uš in-na-as-xu

the sprout whose roots have been torn away ;

gu šar-šar-ra a nu-nag-a-mu

qu-u ša ina mu-sa-ri-e me-e la iš-tu-u

the vegetation which in its bed has drunk no water ;

A similar construction to the above is undoubtedly that in ASKT., p. 122, 16: *eri-zu-ka áġ-giġ-gá ak-á-mu* = *ana ar-di-ki ša ma-ru-uš-tum ep-šu*, 'unto thy servant (fem.) who has (lit. 'makes' = *ak*) sickness.'

It is perfectly evident from the above examples that we have here a purely relative *-mu* used with participles. This is probably identical in derivation with the demonstrative *mu-* in the regular relative pronoun *mu-lu* and also with the common *mu-*prefix of verbs. It is quite possible that this relative *-mu* was used to indicate all three persons, like the *mu-*prefix in verbs.

What then are we to conclude as to the pronominal use with the Sumerian verb? Is it possible to imagine a verbal system with no fixed method of expressing the pronouns? The existence of the practically fixed second personal value of the infix *-ra-* and of the very common use of *ga-* as a first person would lead us to suppose that the verbal prefixes were really not indeterminate pronominally, even though Delitzsch lays down the rule that there is no second personal conjugation in Sumerian (p. 102).

The existence of third personal elements has long been recognized. The difficulty lies in the apparently indiscriminate use of many verbal prefixes for all three persons and the fixation of this usage by Poebel's undoubtedly valuable equations. The question now is whether Poebel is right in supposing that there underlies in every case of a first personal usage the '-vowel, *i. e.*, that *mu-*, 'I'

stood for *mu*-, while *mu*, 'he' did not contain this element. This is equally true of the *e*-prefix of the second person varying with *i*, cited by Poebel as characteristic. Are we to understand an *e*-element hidden in every second personal equation; *ba*-, *im*-, *in*-, *mi*-, *ma*-, *mu*-? The latter question must be answered in the negative, because, as just shown, *e* was not used exclusively of the second person. An examination of the paradigms as given by me in this paper will show the improbability of such a proposition.

The first thought which strikes the philologist studying this maze of apparently contradictory forms suggests the theory that in Sumerian, as in other languages, person in the verb must have expressed by the tone. This idea I suggested in AJSL. XIX., pp. 205-206, but no Sumerologist has ever gone into the matter. All scholars in this line have preferred, either to deny the distinction of pronouns by the verbal prefixes or else to suggest a difference in quantity (Paul Haupt, Sfg., p. 19, n. 6; Bertin, PSBA. V (1882-3), pp. 19 ff). But a difference in quantity or "accent," as some call it, would have been indicated at least by a prolongation of the vowel of the prefix. Real voice-tone would not have been so designated, any more than it is Chinese Wen-Li to-day. Grammatical tones actually exist in African YóruBa, as *ile re*, 'thy house' but *ile rê* (another tone), 'his house'; in this language *o*='thou' but *ô* (another tone)='he, she, it.' Nothing could be more suggestive than this parallel (cf. S. Crowther, "Grammar of the YóruBa Language" (London, 1852), p. 12). I cite it, not of course with the intention of connecting Sumerian with YóruBa, but simply to demonstrate the possibility of toned grammatical elements which do not occur in Chinese. The three persons expressed by *ba*-, *im*-, *in*-, *mi*- and *mu*-, the two persons by *ma*- and the similar apparently indiscriminate use of the infixes, noted above, all point only to such a solution, which is far more reasonable than the idea that hidden vowels exist in such prefixes and infixes. If these vowels were present, how were they distinguished? There is nothing in the inscriptions to betray their existence. The Chinese do not indicate tones in their writing, because they are as readily understood by the reader of a living language, as an English reader understands the distinction between words of identical sound and difference of mean-

ing such as 'so, sow' and 'sew'; 'low' = 'below' and the verb 'low,' etc. Similarly, the Babylonian priest to whom Sumerian was, if not in later times actually a living tongue, at least a pronounced idiom, would never have thought of indicating the tonal differentiation of the grammatical verbal elements. The very poverty of Sumerian phonetically and the apparent monotony of its consonantal elements go to show the necessity of supposing some special unindicated means of differentiation. There seems to be every reason to suppose that such elements cited above as *ba-*, *im-*, *in-*, *mi-*, *mu-* indicating the first, second and third persons in the verbal scheme must have been tonally differentiated.

There are only about eleven distinguishing consonantal elements in the language; viz., *b*, probably = near object and near demonstrative; *d* = partitive; locative; means; *g* = precative and intentional; hence, future (= also *ng* = *n*); *ǵ* = pure precative optative, indicated herein by *x*; *l* (rare) = *n*; *m* = demonstrative and relating; *n*, probably = remote object and demonstrative; *r* = ethical dative; motion, direction towards, and perhaps rhotacism for *z* in the second person *-ra*; *š* = direction towards, similar to *r*, with which it may be connected etymologically; *t* = 'in' or 'out of'; location in general; *z* = pure second person, the only fixed consonantal grammatical value. Combine with these elements the vowels *a* = direction and *i* (*e*) = completed action, past and future, having a force like the Slavonic "perfective" forms, not forgetting that *i* may be the harmonic equivalent of *e* and *u* of *a*, and we get a reasonable explanation of most of the prefixes and suffixes of the language, particularly of the verbal prefixes treated above. See for a full discussion of these points, Prince AJSL. XXIV. pp. 354-365, and also in Encyclopaedia Britannica, XXVI, p. 77.

Poebel's infixes (pp. 70 ff), all which are, of course, well known, I will amplify by the following examples for the sake of clearness: *na*, 'to him'; *in-na-an-ba-e* = *uqassu*, 'he gives to him' = *na*, 'to him' + *n*, 'it' remote; *in-ne-la-e*, 'he will pay to them' (*-ne*); cf. *mu-ne-gen*, 'he went to him'; note that *šin* = 'them,' ИТ., p. 46, 25; *in-ši-in-se*, 'he gave to them'; *ma-la-e*, 'he will pay me'; here the *m* stands for the 1 p. + the directive *a*; *mu-ra-la-e*, 'he will pay thee'; the *mu* contains the demonstrative *m* + the tonal vowel of the

third person + the 2 p. *-ra-*; *in-ši-la-e*, 'he will pay to him': *i*, the perfective vowel + *n* = remote object 'it' + *ši* directive; *mu-ši-la-e*, 'he will pay to me'; the tonal *mu* of the 1 p. + directive *ši*; *mu-e-ši-la-e*, 'he will pay for thee': demonstrative *m* + tonal *u* of the second person + perfective *e*; *i(n)-ni-la-e*, 'he will pay upon (= for) it' = perfective *i* + remote object *n* + perfective *i* again + *ni*, really = 'therein'; *i(n)-na-ni-la-e*, 'he will pay to him upon it'; same as the above with the directive *na*-insert; *ib-ta-la-e*, 'he will pay from it (out of it)'; perfective *i* + nearer object *b*; *i(n)-na(b)-ta-la-e*, 'he will pay to him from (out of) it'; same as above with directive *na* + nearer object *b*; *ib-da-la-e*, 'he will pay together with it'; better 'by means of it'; *ib* as above with the *da* of means; *mu-e-da-la-e*, 'he will pay together with thee' demonstrative *m* with tonal *u* of the second person + perfective *e* + *da* as above. Poebel's whole set of infix-paradigms may be explained satisfactorily following this system.